



MOTOROLA INC.

Communications
Sector

POWER SUPPLY
675 W, 110/220 V, 60 Hz
MODEL TPN1260A (110 V)
MODEL TPN1265A (110/220 V)

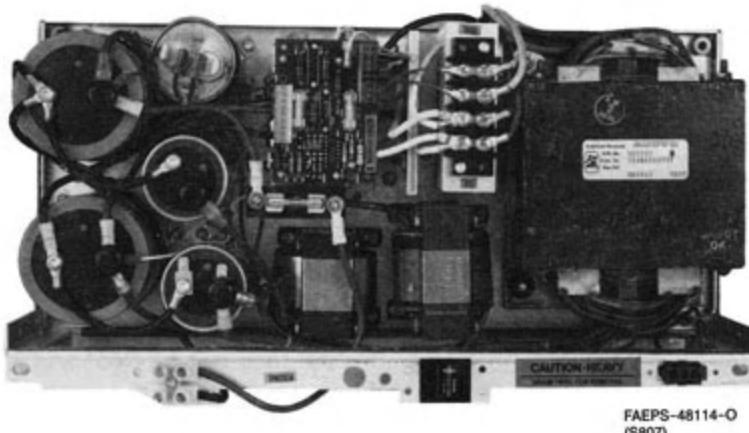


Figure I. Model TPN1260A / TPN1265A Power Supply

PERFORMANCE SPECIFICATIONS

Weight	22 kg (48.5 lb.)
Operating Temp	-30° to +80°C (-22° to +176°F)
Input Voltage	96-132 V~; 60 Hz (Model TPN1260A) 90-140 / 180-280 V~; 60 Hz (Model TPN1265A)
Line Current*	10 A max. at full rated power supply output (Model TPN1260A) 11 A max. at full rated power supply output (110 V~) (Model TPN1265A)
Steady State Output Voltage	13.0 to 16.0 V dc (10 A to 2 A) and 27 to 32 V dc (19.5 A to 2 A)
Output Power (Rated)	675 Watts continuous
Load Transient	Shall not drop below 12 V for a 1.5 A to 10 A transient (measured at J603), and; Shall not drop below 25 V for a 1.5 A to 19.5 A transient (measured at TB651)
Output Ripple	50 mV p-p 25° to 80°C (77° to 176°F) Derate to 100 mV p-p at -30°C (-22°F)
Efficiency	Greater than 76% (full load)
Short Circuit Current	Equal to or less than 155 A (measured at TB601)

*When calculating power requirements, do not use Line Current to calculate dissipated power. Use a power meter with provisions for non-unity power factor.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

1. DESCRIPTION

The TPN1260A and TPN1265A Power Supplies are high efficiency, solid state, power sources for operation of base or repeater radio stations. Model TPN1265A incorpo-

rates a switch which allows operation from either 110 V or 220 V ac. In all other respects, the power supplies are functionally identical. The power supply consists of two main sections: a ferroresonant transformer-rectifier-filter chassis, and a distribution board.

The transformer has a primary winding, a high current secondary winding, and a resonant secondary winding. Under normal operations, the current in the resonant winding causes the transformer core to saturate, limiting the transformer output voltage. Rectifying and filtering the transformer output produces a stable direct current output.

The distribution board consists of two power supply fuses and circuitry for overvoltage protection. The circuitry senses a high dc voltage and adds loading for voltage reduction.

The features of this power supply include short circuit protection, which is inherent in the ferroresonant power transformer, and overvoltage protection.

Table 1. Model Complement For TPN1260A Power Supply

Kit	Description
TRN7248A	Power Supply Distribution Board
TRN7098A	Power Supply Hardware Kit (675 W, 60 Hz)
TRN7097A	Miscellaneous Hardware Kit

Table 2. Model Complement For TPN1265A Power Supply

Kit	Description
TRN7248A	Power Supply Distribution Board
TRN7237A	Power Supply Hardware Kit (675 W, 60 Hz)
TRN7097A	Miscellaneous Hardware Kit

2. DESCRIPTION OF OPERATION

2.1 POWER SUPPLY HARDWARE (675 W, 60 Hz)

Refer to the power supply functional block diagram. The electrical components of the TRN7098A Power Supply Hardware Kit perform the conversion of ac line voltage to the dc voltages required by the radio. The supply provides rectification, filtering, and regulation. Refer to the functional and schematic diagrams for circuit details.

2.1.1 Rectification and Filtering

The secondary voltage of transformer T651 is rectified by CR651 thru CR654. Ground connection for the diodes is provided through the grounded heat sink to the chassis. Output filtering is provided by the network of C652, C653, and L651 for 28 V dc at TB651. A 14 V dc output is provided at J603 by a center tap on the transformer secondary, and is filtered by C654, C655, and L652. The 28 V dc output at TB651 may provide up to 20 amps, provided the combined total output power from J603 and TB651 does not exceed 675 watts.

2.1.2 Regulation

Line and load regulation is provided by the ferroresonant action in the secondary resonant winding of the power transformer T651. The high voltage winding resonates with C651, causing the secondary to saturate and restrict the secondary output voltage.

2.2 TRN7248A DISTRIBUTION BOARD

The TRN7248A Distribution Board provides overcurrent and overvoltage protection for the power supply. Refer to the functional and schematic diagrams for circuit details. 14 V A+ voltage fusing is provided by F601 and F602, 6.3A 20X5 (UL rated 6.0 A fuses may also be used here). Overvoltage protection is provided by a surge protection circuit consisting of Q601 thru Q603 and U601. A surge in excess of 34.0 V causes the voltage at op-amp U601 pin 4 to exceed the reference voltage of 5.1 V at U601 pin 5. The output voltage at U601 pin 2 drops to less than 1 V, causing Q601 to turn on using chassis mounted resistors R651 and R652 as a pull-down load for the power supply output.

When the voltage at U601 pin 2 drops, U601 pin 1 goes to a high impedance. This changes the threshold voltage to 30.5 V. Any subsequent normal use of the station, which loads the power supply enough to pull the output voltage down below the 30.5 V threshold (PA Key, etc.) will then release R651 and R652.

3. AC INPUT POWER AND GROUND CONNECTIONS

3.1 INTRODUCTION

The TPN1260A and TPN1265A Power Supplies are shipped from the factory for operation from a 110 V ~, 60 Hz power source. However, the TPN1265A power supply may also be operated from a 220 V ~, 60 Hz power source by switch selection and proper fusing. Refer to the Initial Power Supply Set-up paragraph for details.

If a station has a separate power line, it should be either a 10.0 ampere (minimum), 110 V ~, 60 Hz or a 5.0 ampere (minimum), 220 V ~, 60 Hz circuit, depending upon the power source. (If a station has two power supplies, the line current requirements double.) The power lines should be installed in accordance with local electrical codes. A substantial earth ground must be provided as close to and in as straight a line as possible with a ground terminal on the station cabinet. DO NOT consider the electrical outlet box as a substantial ground. Refer to the Lighting Protection Recommendation Instruction section, 68P81111E17, for additional grounding recommendations.

The primary ac power line may be installed prior to installation of the cabinet and terminated near the location chosen for the station if the power line cord supplied with the station is to be used. If the station power is to be

supplied via conduit protected wiring, the station must be installed first. The following paragraphs provide a separate procedure for each type of installation.

WARNING

A main power ON-OFF switch is not normally provided with the station. Therefore, the equipment will be immediately operational when main power is applied from a live ac outlet.

3.2 INITIAL POWER SUPPLY SET-UP

Step 1. Determine the primary power source voltage (110 V ~, 60 Hz or 220 V ~, 60Hz).

Step 2. Refer to Figure 2 for component locations. Ensure that the switch (S651) on the power supply chassis is set to correspond with the primary power source voltage.

Step 3. Check the value of line fuse F651 (located on the power supply chassis or station junction box). If the station is to be operated on 110 V ~, 60 Hz, install a 15.0 ampere fuse and fuse cap. If the station is to be operated on 220 V ~, 60 Hz, install the 5.0 ampere fuse and fuse cap supplied.

3.3 INSTALLATION USING POWER LINE CORD SUPPLIED WITH THE POWER SUPPLY

Step 1. Install the station as described in the station instruction manual.

Step 2. Refer to Figure 2 for component locations. Connect the female plug of the supplied three-wire ac line cord (P604) to the main ac power connector (J604) on the junction box.

NOTE

The primary power wire colors used conform to international standards. Refer to the following cross reference table as required.

Table 3. Primary Power Wire Color Standards

Power Connection	International STD Wire Color	US Standard Wire Color
Line	Brown	Black
Neutral	Blue	White
Ground	Green/Yellow	Green

Step 3. Connect the power cord to an ac outlet provided near the station.

Step 4. Connect the station cabinet to a substantial earth ground located as close as possible to the station, and in as straight a line as possible with the station ground terminal.

WARNING

Even if a three-wire grounded primary ac power source is available, the radio equipment must be grounded separately to prevent electrical shock hazards and provide lightning protection.

3.4 STATION INSTALLATION USING CONDUIT PROTECTED WIRE

The station junction box has provisions to facilitate the connection of ac power to the station using conduit protected wiring. The following installation procedure is recommended.

Step 1. Remove the two screws attaching ac input connector J604 to the station junction box and carefully pull the connector away from the junction box.

Step 2. Cut the wires as close as possible to the ac input connector.

Step 3. Strip insulation from the wires for a sufficient length to allow connection to the incoming power leads.

Step 4. Attach a 4-1/8" x 2-3/8" x 1-1/2" electrical box (Appleton Catalog No. 184-E, universal code 69351 or equivalent box, using an extension ring to protect the wires from sharp edges, not supplied) to the junction box using two 6-32 x 5/16" self-tapping washer head screws in the holes provided. See Figure 3.

Step 5. Attach conduit to the electrical box and make the electrical connections. It may be desirable to provide an ON-OFF switch or convenience outlet on the electrical box.

Step 6. Attach a suitable cover to the electrical box.

4. MAINTENANCE**4.1 INTRODUCTION**

Maintenance and repair of the power supply requires an understanding of its operation. Refer to the power supply Description of Operation paragraph for this information.

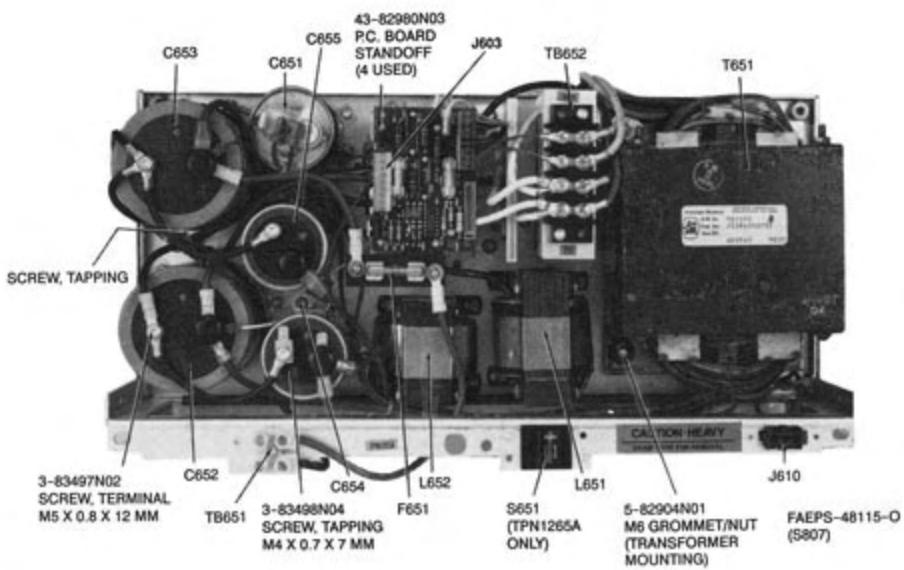
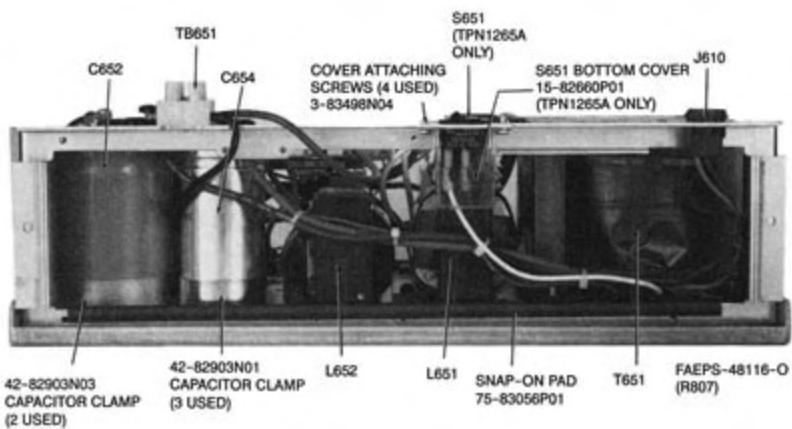
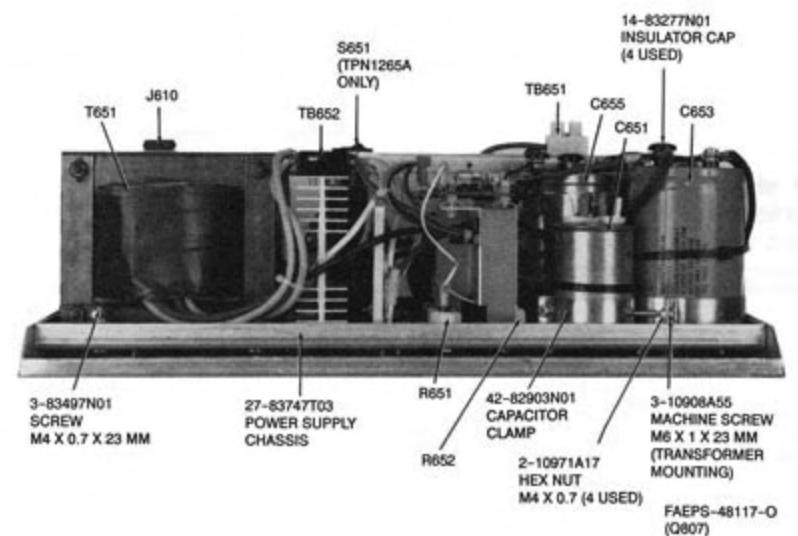


Figure 2. Mechanical Parts Location Photographs

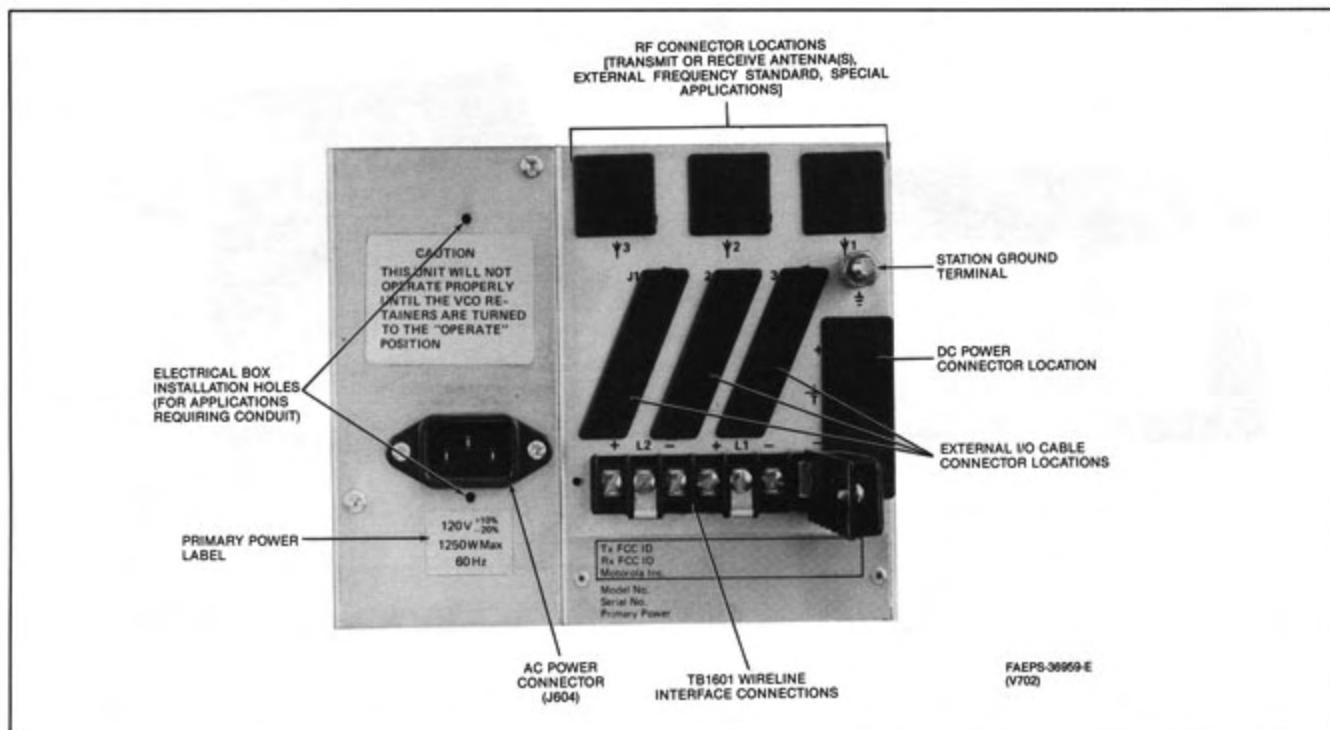


Figure 3. Junction Box External Connection Detail

4.2 TEST EQUIPMENT REQUIRED

The following test equipment is necessary for servicing in the event that maintenance is required.

- 3½ digit DVM (Motorola Model R1001 or equivalent).
- Two DC current meters (25 amperes)
- Load resistor (variable from 0 to 2 ohms, capable of carrying 20 amperes).
- Variable voltage ac line transformer (0–130 volts).
- Oscilloscope.
- Bench service line cord, consisting of:

Quantity	Motorola Part No.	Description
1	15-83183N01	Housing
2	39-83145N01	Contact
1	39-83145N02	Contact
1	30-865903	Cord

4.3 POWER SUPPLY REMOVAL

WARNING

The power supply can be unexpectedly heavy. It balances sharply to the right. Be sure to follow the removal instructions exactly.

Step 1. Refer to Figure 4. Disconnect P610 from J610 on the power supply chassis. Disconnect P603 from J603 on the distribution board. Remove the two wires from the + and – terminals of TB651 on the power supply chassis. Note the color coding of the wires and the polarity of the terminals. If necessary, tag the wires for ease of identification for reassembly.

Step 2. Refer to Figure 4. Remove main chassis screws and loosen main chassis captive screws.

Step 3. Slide power supply chassis forward until chassis is flush with cabinet, as shown in Figure 5.

WARNING

Do not allow chassis to slide freely beyond front of cabinet. Cabinet rail support ends abruptly.

Step 4. Grip the chassis with BOTH hands, as shown in Figure 5. Find a comfortable grip around the flattened parts of the metal. Adjacent parts have sharp edges.

IMPORTANT

Note wrist position in Figure 5.

Step 5. Plant feet firmly, with good body balance, in order to receive and control the heavy power supply.

Step 6. Reach under the bottom of the chassis with your left hand, to balance the heavy chassis on the cabinet. Press the chassis firmly against the rails, or else it may suddenly slide out of the cabinet. See Figure 6.

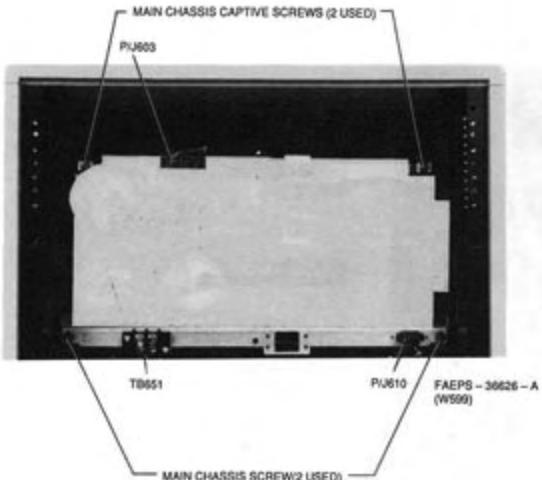


Figure 4. Power Supply Mounting Hardware and External Connections

Step 7. Reposition the left hand from balancing the chassis to a point where a firm grip can be obtained.

Step 8. Brace your body to receive a heavy weight, and lift the power supply chassis free of the cabinet. See Figure 7.

Step 9. Re-install the power supply by reversing the removal procedure.

4.4 TROUBLESHOOTING

Refer to the circuit board details and schematic diagram for electrical circuit details. Refer to table 3 for quick troubleshooting hints.



Figure 5. Power Supply Chassis Travel Distance



Figure 6. Properly Gripped Chassis

Table 4. Quick Troubleshooting Hints

Symptom	Corrective Action
A. Low or no output voltage.	1) Check primary line connection to supply. 2) Check transformer secondary voltage at TB651. 3) Check power rectifiers CR651 to CR654. 4) Check capacitors C652 to C655 for shorts.
B. Output voltage slumps excessively on transmit.	1) Check C601.

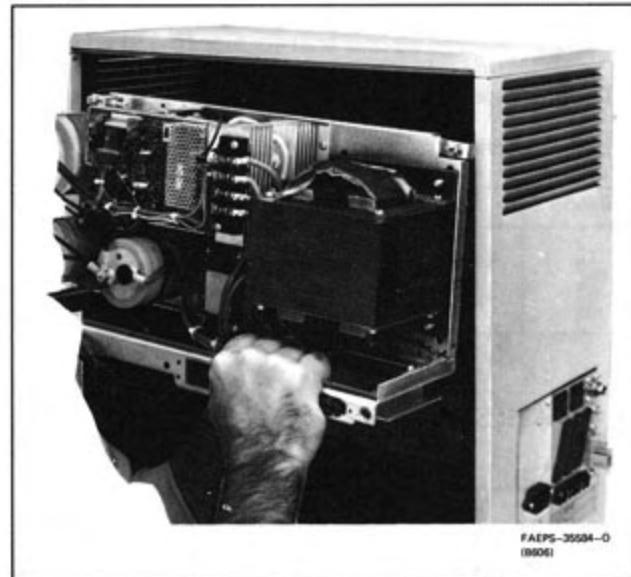
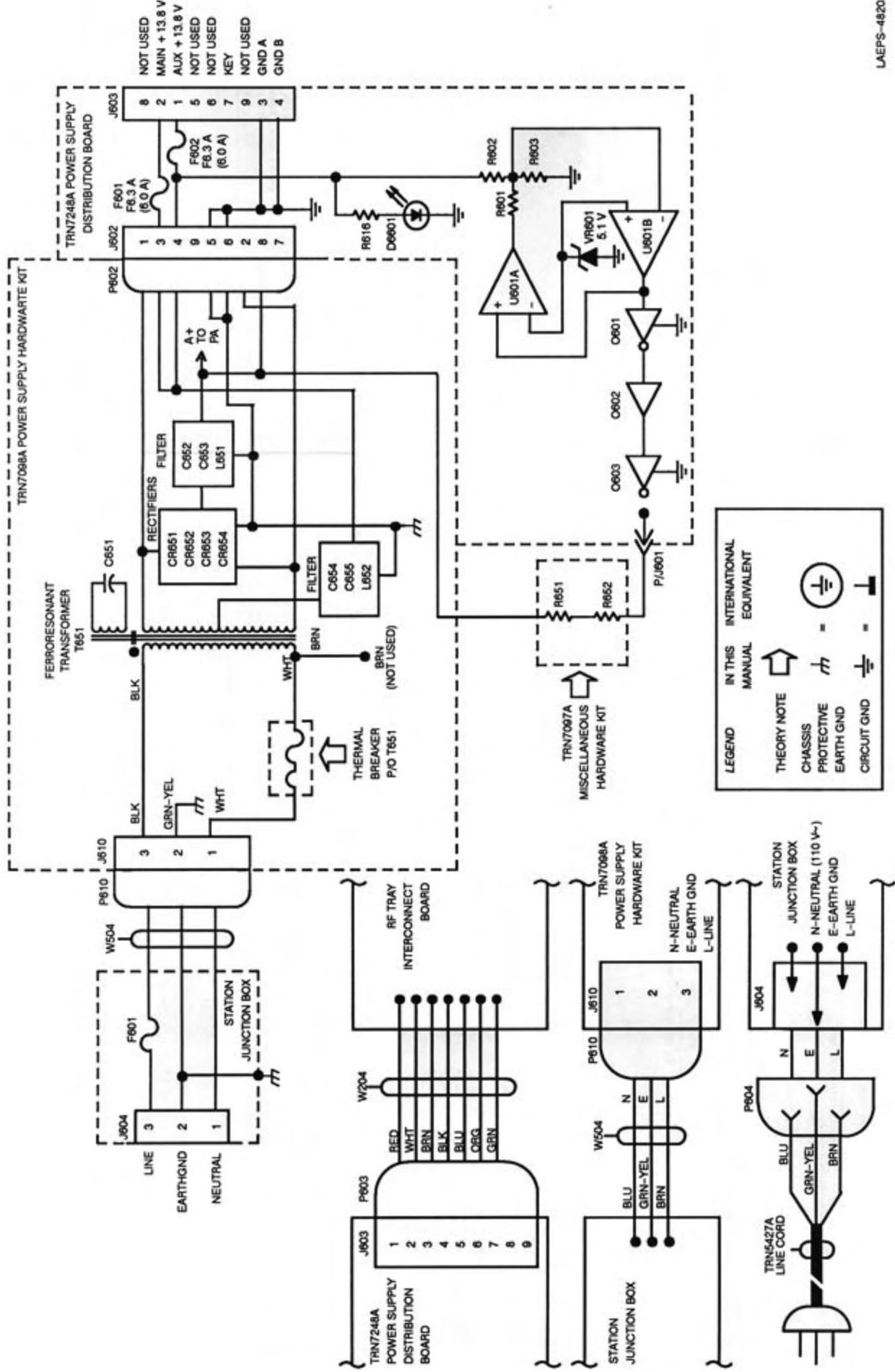
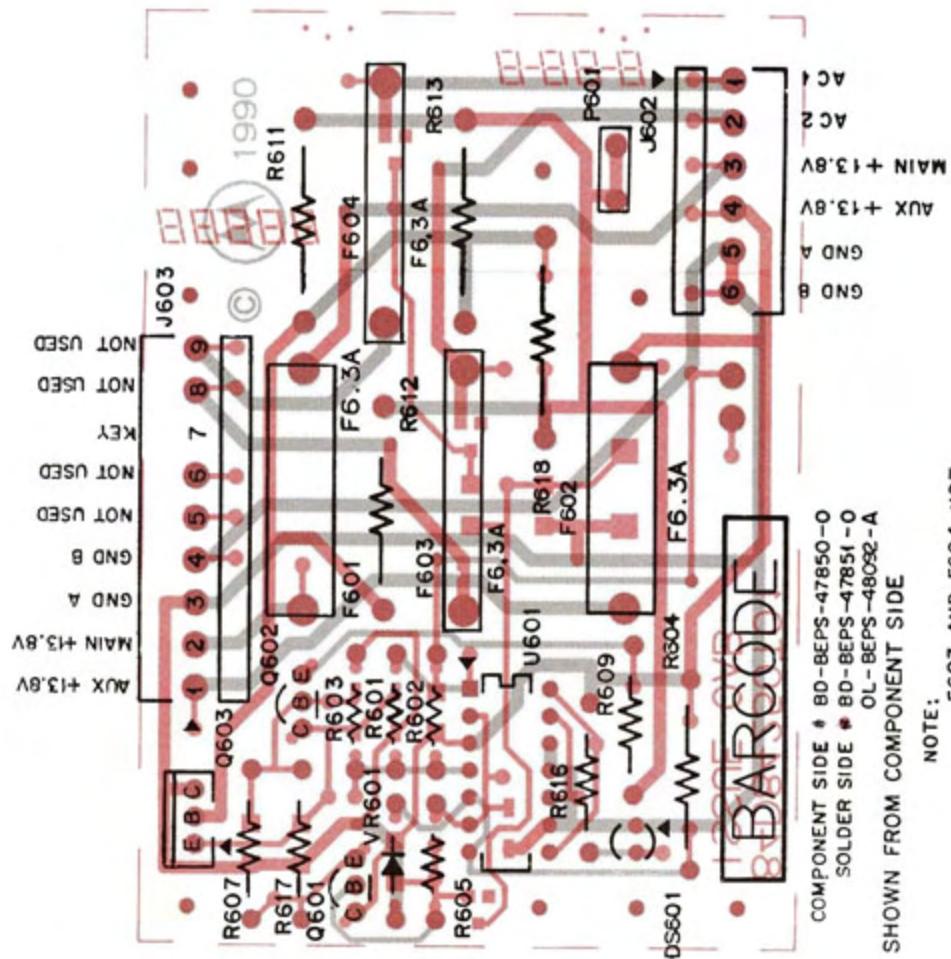
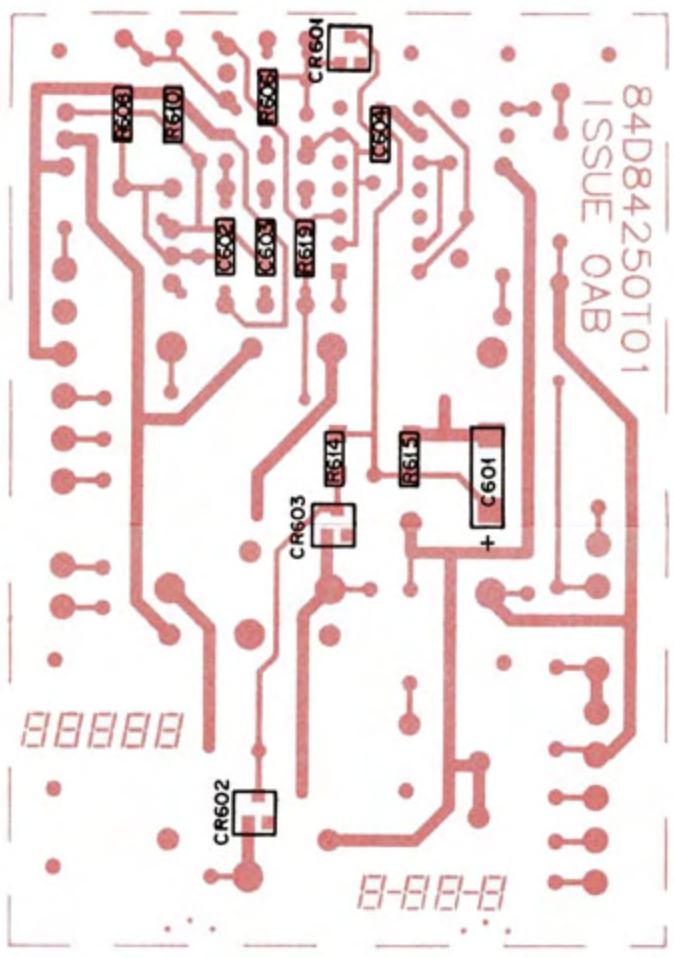


Figure 7. Power Supply Removed From Cabinet

TPN1260A FUNCTIONAL BLOCK DIAGRAM





parts list

TRN7237A Hardware Kit; 675 W; 60 Hz; 110/220 V ac

PL-11652-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C651	0882682N05	capacitor, fixed: 30uF + -6% 330V
C652,653	2382681N13	93,000uF -10 + 75% 40V
C654,655	2382681N06	73,500uF -10 + 75% 20V
CR651,652	4882732C09	diode: (see note) silicon
CR653,654	4882732C08	silicon
L651	2582686N01	coil: 420 uH
L652	2582620P01	1.1 mH
P602	0983360N02	connector: female: 9-contact
S651	4084612B05	switch: dpdt rocker
T651	2584158T01	transformer, power: 675W 60Hz 110/220 Vac
TB651	3183576K02	terminal block: 2-contact
TB652	3100811350	4-contact

non-referenced items

0210971A17	NUT, machine: M4 x 0.7; 5 used
0210971A19	NUT, machine: M6 x 1; 2 used
0310908A55	SCREW, machine: M6 x 1 x 25; 4 used
0310928830	SCREW, locking: TT5 x 0.8 x 10; 2 used
0383497N01	SCREW, machine: M4 x 0.7 x 23; 5 used
0383497N02	SCREW, machine: M5 x 0.8 x 12; 8 used
0383498N04	SCREW, tapping: M4 x 0.7 x 7; 29 used
0383498N06	SCREW, tapping: M4 x 0.7 x 16; 2 used
0383678N02	SCREW, tapping: M4 x 0.7 x 18
04000007651	WASHER, #8 Internal lock: 8 used
04000007658	WASHER, #10 Internal lock: 10 used
0400119331	WASHER, #1/4 medium split lock: 2 used
0400135873	WASHER, 0.281 x 0.75 x .06 flat: 2 used
0483423R01	WASHER, flat rectangular: 2 used
0483499N01	WASHER, Insulating lug: 4 used
0484071T01	WASHER, shoulder: 2 used
0582904N01	GROMMET, M12.7: 4 used
1483277N01	INSULATOR, lug: 4 used
1483988T01	INSULATOR, heat sink
1484086N01	INSULATOR, cap terminal: 2 used
1582659P01	COVER, front switch
1582660P01	COVER, rear switch
2783747T03	CHASSIS, power supply
2982607B05	LUG, ring: 7 used
2982607B06	LUG, ring
2983501T01	LUG, male terminal: 2 used
2984709N01	TERMINAL, blue crimp insulating
3983146N01	CONTACT, receptacle
4210217A02	STRAP, .091 x 3.62 white tie: 14 used
4210217A33	STRAP, 0.19 x 15" black tie: 2 used
4282903N01	CLIP, 2" cap: 3 used
4282903N03	CLIP, 3" cap: 2 used
5482885P02	LABEL, rocker switch
5483971N01	LABEL
5484046N01	LABEL
7583056P01	PAD, snap-on
0180726E07	CONNECTOR CHOKE ASSEMBLY: Includes:
2982907N07	TERMINAL, red ring: 5 used
0180726E08	HEAT SINK ASSEMBLY: Includes:
0210971A17	NUT, machine: M4 x 0.7
0383498N06	SCREW, tapping: M4 x 0.7 x 16
04000007651	WASHER, #8 Internal
2683876T01	HEAT SINK, power supply
2982607B09	LUG, ring: 2 used
2982907N05	TERMINAL, yellow ring: 2 used
2983137N01	TERMINAL, Insulator: 2 used
0180752D44	HEAT SINK ASSEMBLY: Includes:
0383498N06	SCREW, tapping: M4 x 0.7 x 16; 3 used
04000007651	WASHER, #8 Internal lock
2682902N01	HEAT SINK
2982607B09	LUG, ring: 2 used
2982907N05	TERMINAL, yellow ring: 2 used
2983137N01	TERMINAL, Insulator: 2 used
4282828T01	CLAMP, cable

note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

TRN7098A 675 W 60 Hz Power Supply Hardware Kit

PL-1

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C651	0882682N05	capacitor, fixed: uF ± 5% 50V: unless otherwise stated
C652,653	2382681N13	30uF + -6% 330V
C654,655	2382681N06	93,000uF -10 + 75% 40V
CR651,652	4882732C09	diode: (see note): silicon
CR653,654	4882732C08	silicon
J610	-	connector: female: 3-contact (p/o T651)
L651	2582686N01	coil: 420uH
L652	2582620P01	1.1mH
P602	0983360N02	connector: female: 9-contact
T651	2583354T01	transformer: 675W power (p/o J610)
TB651	3183576K02	terminal block: 2 terminals
TB652	3100811350	4 terminals

non-referenced items

0210971A17	NUT, machine: M4 x 0.7; 5 used
0210971A18	NUT, machine: M5 x 0.8
0210971A19	NUT, machine: M6 x 1; 2 used
0310908A55	SCREW, machine: M6 x 1 x 25; 4 used
0310943M29	SCREW, tapping: TT5 x 0.8 x 13
0310943M34	SCREW, tapping: TT8 x 1 x 10
0383497N01	SCREW, machine: M4 x 0.7 x 23; 5 used
0383497N02	SCREW, machine: M5 x 0.8 x 12; 9 used
0383498N04	SCREW, tapping: M4 x 0.7 x 16; 25 used
0383498N06	SCREW, tapping: M4 x 0.7 x 18; 5 used
0383678N02	SCREW, tapping: M4 x 0.7 x 18
0400007651	WASHER, #8 Internal lock: 9 used
0400007658	WASHER, #10 Internal lock: 11 used
0400007678	WASHER, #1/4 external lock: 2 used
0400119331	WASHER, #1/4 medium split lock: 2 used
0400135873	WASHER, flat: 0.281 x 0.75 x .06; 2 used
0483423R01	WASHER, flat rectangular: 2 used
0484071T01	WASHER, shoulder: 2 used
0582904N01	GROMMET, M12.7: 4 used
1483277N01	INSULATOR, lug: 4 used
1483988T01	INSULATOR, heat sink
1484068N01	INSULATOR, cap terminal: 2 used
2682902N01	HEAT SINK
2683676T01	HEAT SINK, power supply
2783747T03	CHASSIS, power supply
2900824152	LUG, ring
2982607B09	LUG, ring: 4 used
2982907N05	TERMINAL, yellow ring: 14 used
2982907N07	TERMINAL, red ring: 6 used
2983137N01	TERMINAL, Insulator: 4 used
2983501T01	LUG, male terminal: 2 used
3983146N01	CONTACT, receptacle
4200085238	CLAMP, cable: 4 used
4210217A02	STRAP, white tie: .091 x 3.62; 8 used
4210217A33	STRAP, black tie: 0.19 x 15; 2 used
4282828T01	CLAMP, cable
4282903N01	CLIP, 2" cap: 3 used
4282903N03	CLIP, 3" cap: 2 used
5483971N01	LABEL: 2 used
5484046N01	LABEL
7583056P01	PAD, snap-on

note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

Power Supply Hardware Kit PL-11384-B

MOTOROLA PART NO.	DESCRIPTION
2682N05	capacitor, fixed: $\mu\text{F} \pm 5\% 50\text{V}$: unless otherwise stated
30uF + -6% 330V	
2681N13	93.000uF -10 + 75% 40V
2681N06	73.500uF -10 + 75% 20V
2732C09	diode (see note): silicon
2732C08	silicon
2732C08	connector: female: 3-contact (p/o T851)
2686N01	coil: 420uH
2620P01	1.1mH
4360N02	connector: female: 9-contact
4354T01	transformer: 675W power (p/o J610)
4578KD2	terminal block: 2 terminals
4811350	4 terminals
non-referenced items	
971A17	NUT, machine: M4 x 0.7; 5 used
971A18	NUT, machine: M5 x 0.8
971A19	NUT, machine: M6 x 1; 2 used
908A55	SCREW, machine: M6 x 1 x 25; 4 used
4943M29	SCREW, tapping: TT5 x 0.8 x 13
4943M34	SCREW, tapping: TT6 x 1 x 10
497N01	SCREW, machine: M4 x 0.7 x 23; 5 used
497N02	SCREW, machine: M5 x 0.8 x 12; 9 used
498N04	SCREW, tapping: M4 x 0.7 x 7; 25 used
498N06	SCREW, tapping: M4 x 0.7 x 16; 5 used
678N02	SCREW, tapping: M4 x 0.7 x 18
007651	WASHER, #8 internal lock: 9 used
007658	WASHER, #10 internal lock: 11 used
007678	WASHER, #1/4 external lock: 2 used
119331	WASHER, #1/4 medium split lock: 2 used
135873	WASHER, flat: 0.281 x 0.75 x .06; 2 used
423901	WASHER, flat rectangular: 2 used
071T01	WASHER, shoulder: 2 used
904N01	GROMMET, M12.7: 4 used
277N01	INSULATOR, lug: 4 used
998T01	INSULATOR, heat sink
088N01	INSULATOR, cap terminal: 2 used
902N01	HEAT SINK
876T01	HEAT SINK, power supply
7477T03	CHASSIS, power supply
824152	LUG, ring
807B09	LUG, ring: 4 used
907N05	TERMINAL, yellow ring: 14 used
907N07	TERMINAL, red ring: 6 used
137N01	TERMINAL, insulator: 4 used
501T01	LUG, male terminal: 2 used
146N01	CONTACT, receptacle
085238	CLAMP, cable: 4 used
217A02	STRAP, white tie: .091 x 3.62; 8 used
217A33	STRAP, black tie: 0.19 x 15; 2 used
328T01	CLAMP, cable
903N01	CLIP, 2" cap: 3 used
903N03	CLIP, 3" cap: 2 used
971N01	LABEL: 2 used
348N01	LABEL
056P01	PAD, snap-on

For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

TRN7248A Distribution Board PL-11568-A

REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
C601	2311049A15	capacitor, fixed: $\mu\text{F} \pm 5\% 50\text{V}$: unless otherwise stated
C602,603	2113740832	4.7uF + -10%; 35V
C604	2113740849	20pF + -5%; 50V
		100pF + -5%; 50V
J602,603	2882984N14	connector: plug, 9-pin
P601	2910231A10	terminal, single contact
CR601 thru 603	4811058A11	diode (see note): silicon
DS601	4883636N03	light emitting diode (see note): green
F601, 602	6582847N27	fuse: 6.3A; 250 V (6.0 A UL rated may be used)
R601	0611040D25	resistor, fixed: $\pm 5\% 1/8\text{ W}$: unless otherwise stated
R602	0611040D09	22.1K + -5%; 1/4W
R603	0611040C41	15K + -5%; 1/4W
R604	0611086C55	3010 + -5%; 1/4W
R605	0611009A87	680; 2W
R606	0611077A98	5600; 1/4W
R607	0611086A61	10K
R608	0611077A90	1200; 1W
R609	0611086A03	4700
R610	0611077A60	1; 1W
R611 thru 613	1782036G03	2.0; 2W
R614	0611077A68	270
R615	0611077B05	10K
R616	0611086A63	18K
R617	0611086A61	1500; 1W
R618	1782036G03	1200; 1W
U601	5184621K74	Integrated circuit (see note): comparator
Q601	4800869643	transistor (see note): PNP
Q602	4800869568	NPN
Q603	4800869606	NPN
VR601	4883461E40	zener diode (see note): Zener: 5.1V

non-referenced items

0810548A04 FUSEHOLDER: 2 used (F601,602)

note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

TRN7097A Miscellaneous Hardware Kit PL-11494-B

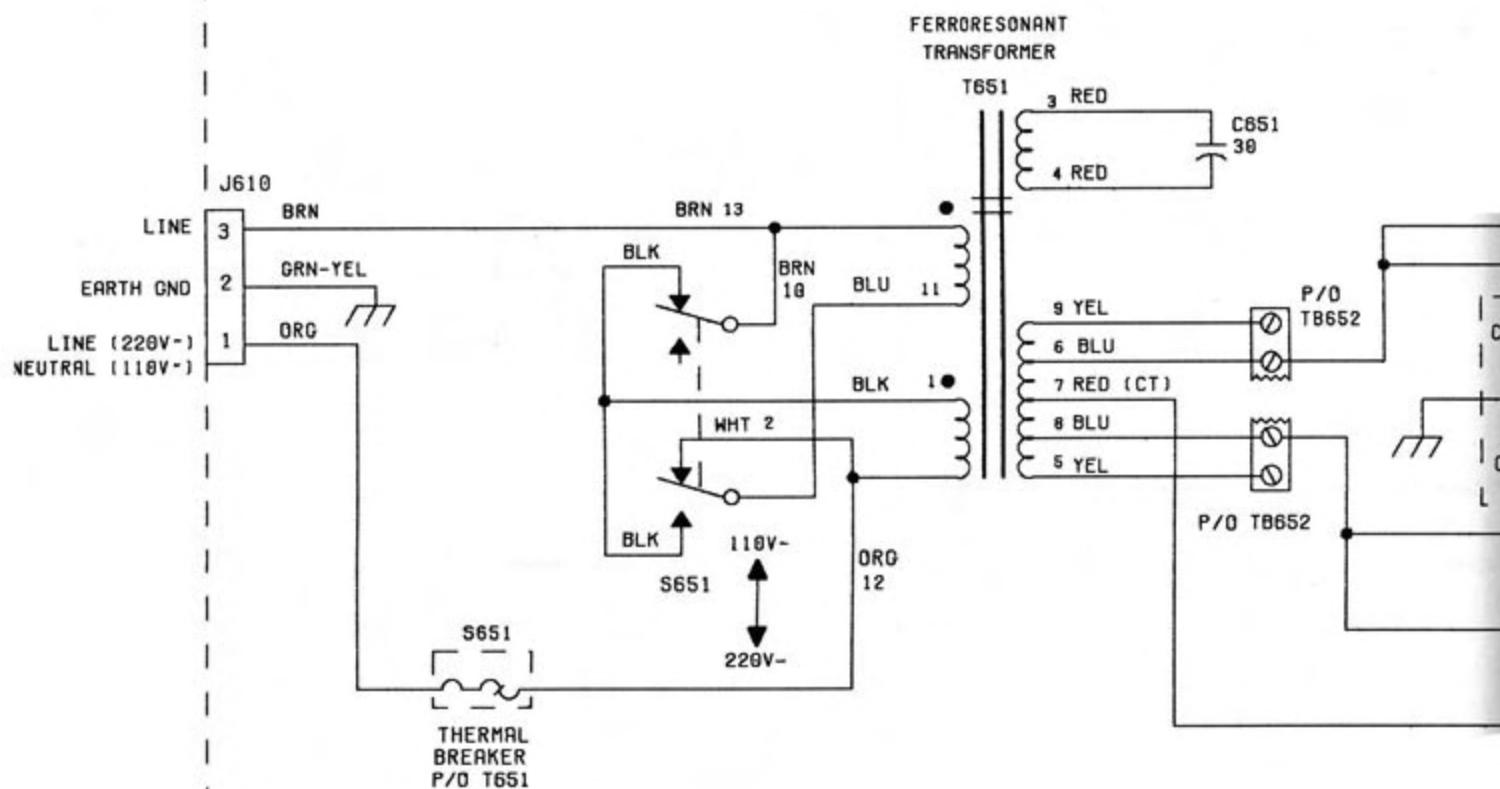
REFERENCE SYMBOL	MOTOROLA PART NO.	DESCRIPTION
F651	6500041492	fuse: 30A 32V
R651,652	1782177B65	resistor, fixed: 10 + -10% 50W
non-referenced items		
	0310943M17	SCREW, tapping: TT3.5 x 0.6 x 13
	0383498N04	SCREW, tapping: M4 x 0.7 x 7; 4 used
	0783991T01	BRACKET, support
	2982907N05	TERMINAL, ring: yellow, 3 used
	2982907N07	TERMINAL, ring: red
	2983113N01	TERMINAL, insulated: blue; 5 used
	3184596C01	TERMINAL, fuseholder
	4382980N03	STANDOFF, board support; 4 used

note: For optimum performance, diodes, transistors, and integrated circuits must be ordered by Motorola part numbers.

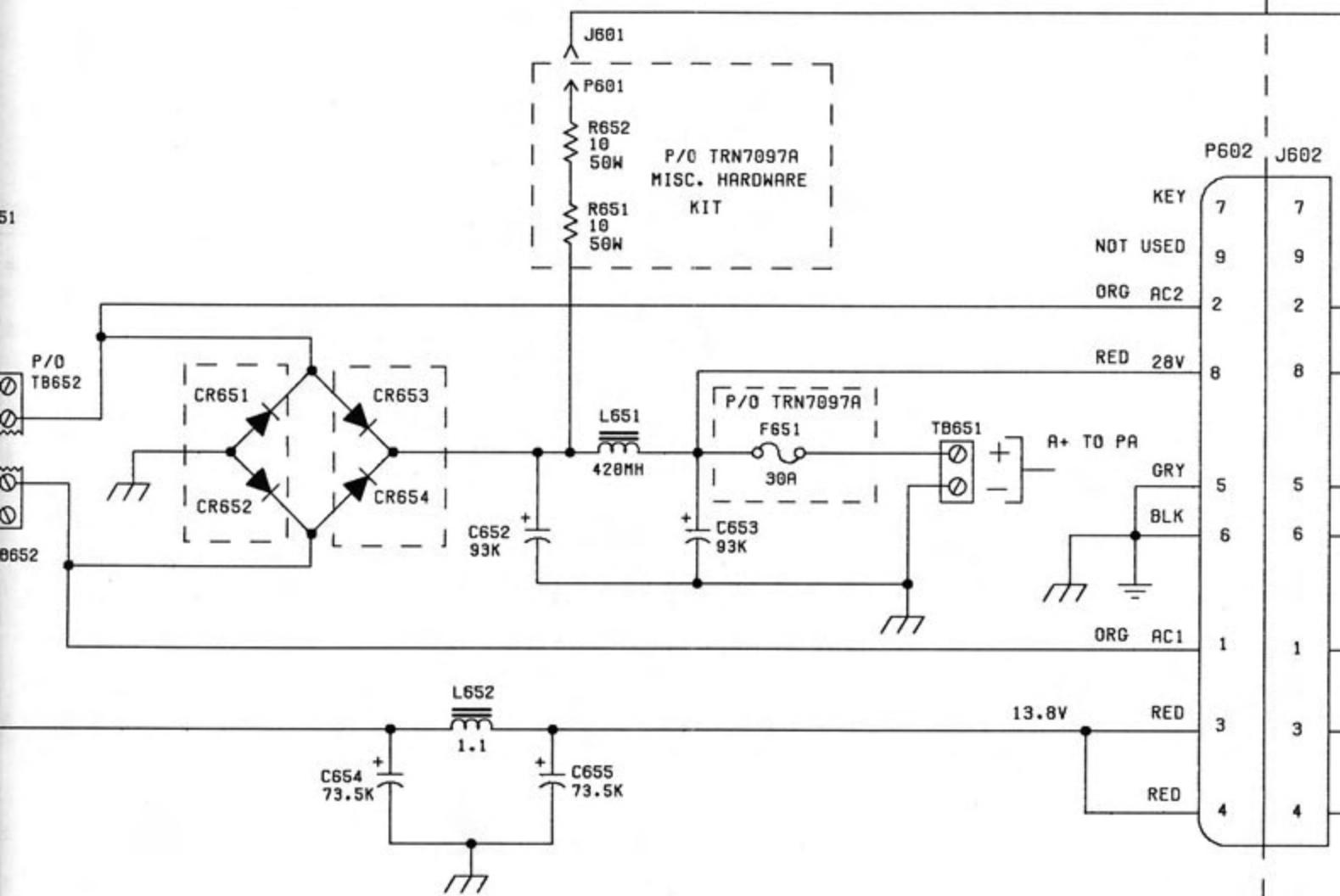
POWER SUPPLY

MODELS TPN1265A SCHEMATIC DIAGRAM

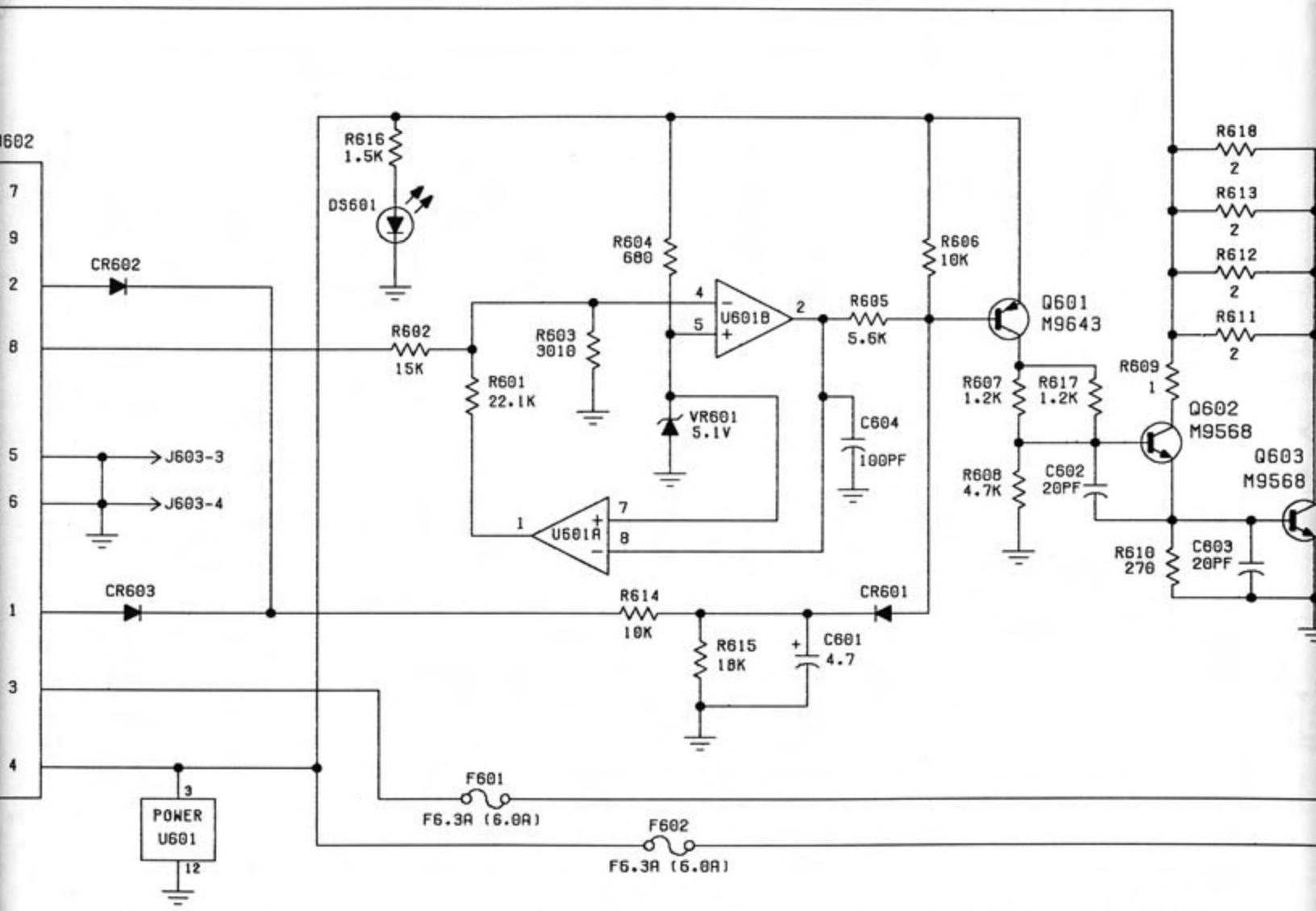
TRN7237A
POWER SUPPLY
HARDWARE KIT

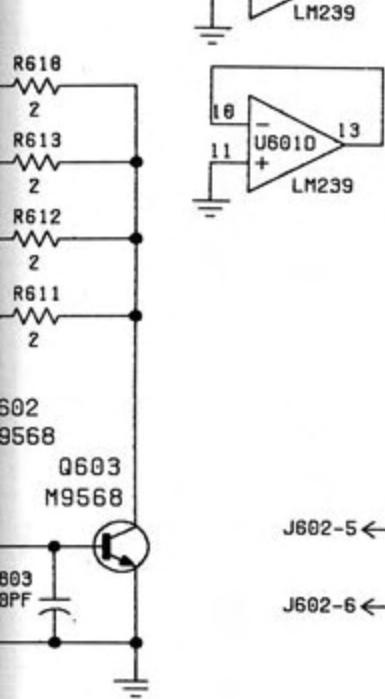


TRN7



TRN7248A POWER SUPPLY DISTRIBUTION BOARD





	J603
5	NOT USED
6	NOT USED
7	KEY
8	NOT USED
3	GND A
4	GND B
9	NOT USED
2	MAIN +13.8V
1	AUX +13.8V

NOTES:

1. UNLESS OTHERWISE SPECIFIED RESISTOR VALUES ARE IN OHMS, CAPACITOR VALUES ARE IN MICROFARADS, AND INDUCTOR VALUES ARE IN MILLIHENRIES.
2. R651 AND R652 ARE MOUNTED ON THE POWER SUPPLY CHASSIS.

LEGEND:

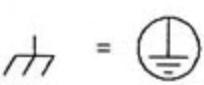
IN THIS
MANUAL INTERNATIONAL
EQUIVALENT

THEORY NOTE



EQUIVALENT

CHASSIS
PROTECTIVE
EARTH GND



CIRCUIT GND



TEPS-48082-0